

****NOT FOR PRINTED PUBLICATION****

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
LUFKIN DIVISION

AFFINITY LABS OF TEXAS, LLC,	§	
	§	
<i>Plaintiff,</i>	§	
	§	CIVIL ACTION No. 9:08CV164
v.	§	
	§	
BMW NORTH AMERICA, LLC, ET AL.,	§	JUDGE RON CLARK
	§	
<i>Defendants.</i>	§	
	§	

AFFINITY LABS OF TEXAS, LLC,	§	
	§	
<i>Plaintiff,</i>	§	
	§	CIVIL ACTION No. 9:08CV171
v.	§	
	§	
ALPINE ELECTRONICS OF AMERICA,	§	JUDGE RON CLARK
INC., ET AL.,	§	
	§	
<i>Defendants.</i>	§	
	§	

ORDER CONSTRUING CLAIM TERMS OF UNITED STATES PATENT NO. 7,324,833

Plaintiff Affinity Labs of Texas, LLC (“Affinity”) filed suit against Defendants BMW North America LLC, *et al.* (Civil Action No. 9:08CV164) and Defendants Alpine Electronics of America, Inc., *et al.* (Civil Action No. 9:08CV171), claiming infringement of United States Patent No. 7,324,833 (“the ‘833 patent”). The court conducted a joint *Markman* hearing for these

two cases to assist in interpreting the meaning of the claim terms in dispute.¹ Having carefully considered the patent, the parties' contentions as presented in their briefs, and the arguments of counsel, the court now makes the following findings and construes the disputed claim terms.²

I. CLAIM CONSTRUCTION STANDARD OF REVIEW

Claim construction is a matter of law. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91, 116 S. Ct. 1384, 1395-96 (1996) ("*Markman II*"); *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998). "The duty of the trial judge is to determine the meaning of the claims at issue, and to instruct the jury accordingly." *Exxon Chem. Patents, Inc. v. Lubrizol*

¹ These two related cases remain as separate actions on the court's docket, and will be tried independently. However, because they involve the same patent, and the accused products in each case involve related technologies, the court conducted one claim construction hearing for both cases. The parties did not object to conducting a joint *Markman* hearing. [See 9:08CV164, Doc. #196, Tr. of Case Mgmt. Conference at p. 66, l. 11 to p. 68, l. 15.] The transcript of the *Markman* hearing contains a number of representations by and agreements of the parties, as well as answers by their experts to technical questions from the court, all of which will not be repeated here, but which may assist in understanding the issues presented. This order governs in the event of any conflict between the order and the court's preliminary analysis at the hearing. Court's Exhibit Nos. 1-15 were discussed at the hearing and are part of the record as [9:08CV164, Doc. #296-2] and [9:08CV171, Doc. #155-2]. These exhibits will be cited in this order as "Ct.'s Ex. No. ____." The transcript of the claim construction hearing is found at [9:08CV164, Doc. #305], and will be cited in this order as "Tr. at p. ____, l. ____."

² To become familiar with the technology underlying the '833 patent from the perspective of one skilled in the art, and to better understand the technical aspects of the parties' arguments, the court appointed Dr. Frank Shipman as technical advisor. [See 9:08CV164, Docs. #213 & 220; 9:08CV171, Docs. #124 & 125.] Dr. Shipman received his Ph.D. in computer science from the University of Colorado in 1993, his M.S. in computer science from the University of Colorado in 1990, and his B.S. in Electrical Engineering from Rice University in 1988. He is currently a professor at Texas A&M University, where he has been on the faculty since 1995. His research interests include intelligent user interfaces, hypertext, computers and education, multimedia, new media, computers and design, computer-human interaction, and computer-supported cooperative work. His research has resulted in more than 100 refereed publications, including two Association for Computing Machinery best paper awards. Dr. Shipman's curriculum vitae can be found at <http://www.csd.tamu.edu/~shipman/vitae.pdf>.

Corp., 64 F.3d 1553, 1555 (Fed. Cir. 1995), *cert. denied*, 518 U.S. 1020, 116 S. Ct. 2554 (1996).

“‘[T]he claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)), *cert. denied*, 546 U.S. 1170, 126 S. Ct. 1332 (2006). “Because the patentee is required to ‘define precisely what his invention is,’ . . . it is ‘unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.’” *Id.* (quoting *White v. Dunbar*, 119 U.S. 47, 52, 7 S. Ct. 72, 75 (1886)).

The words of a claim are generally given their ordinary and customary meaning. *Id.*

“‘[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.’” *Id.* at 1313.

Analyzing how a person of ordinary skill in the art understands a claim term is the starting point of claim interpretation. *Id.*

A person of ordinary skill in the art is “deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* Where a claim term has a particular meaning in the field of the art, the court looks to “‘those sources available to the public to show what a person of skill in the art would have understood [the] disputed claim language to mean.’” *Id.* at 1314 (quoting *Innova*, 381 F.3d at 1116). Those sources include “‘the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.’” *Id.* (quoting *Innova*, 381 F.3d at 1116).

The intrinsic evidence, that is, the patent’s specification and, if in evidence, the prosecution history, is important in claim construction. *Id.* at 1315-17. “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The patent specification and the prosecution history may clarify the definition of terms used in the claims, or may show that the patentee has clearly disavowed the ordinary meaning of a term in favor of some special meaning. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979-80 (Fed. Cir. 1995) (“*Markman I*”), *aff’d*, 517 U.S. 370, 116 S. Ct. 1384 (1996). A claim term takes on its ordinary and accustomed meaning unless the patentee demonstrated an express intent to impart a novel meaning by redefining the term “with reasonable clarity, deliberateness, and precision” in the patent specification or prosecution history. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). The patentee may demonstrate an intent to deviate from the ordinary meaning “by redefining the term or by characterizing the invention in the intrinsic record using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.” *Id.* at 1327. If the patentee clearly intended to provide his own definitions for claim terms, the “inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316.

In addition to the intrinsic evidence, a court is also authorized to review extrinsic evidence, such as dictionaries, inventor testimony, and learned treatises. *Id.* at 1317. For instance, in some cases “the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction . . . involves little more than the application of the widely accepted meaning of commonly understood words”;

a general purpose dictionary may be helpful in these instances. *Id.* at 1314. However, extrinsic evidence is “in general less reliable” than the intrinsic evidence in determining how to read claim terms. *Id.* at 1318. Therefore, while extrinsic evidence may be used to help educate the court regarding the field of the invention and what a person of ordinary skill in the art would understand claim terms to mean, extrinsic evidence should be considered in the context of the intrinsic evidence in order to result in a reliable interpretation of claim scope. *Id.* at 1319.

II. PATENT BACKGROUND AND TECHNOLOGY

The ‘833 patent is directed toward a system and method for connecting and integrating a portable electronic device, such as an MP3 player, with a second electronic device, such as a car’s sound system. The portable electronic device communicates metadata—i.e., information about a particular data set that may describe how, when, and by whom the data set was created, accessed, or modified; its size; and how it was formatted—to the second electronic device. This metadata may include information about song, artist, album, and playlist names. The metadata is used by the second electronic device to create a graphical user interface that is shown on the device’s display. The second electronic device can then be used to select songs stored on the portable electronic device, using “soft buttons” on the GUI. The ‘833 patent also claims a mounting system to connect the two devices.

III. PERSON OF ORDINARY SKILL IN THE ART

After considering the parties’ proposals and arguments made by the parties at the *Markman* hearing, the court finds that a person of ordinary skill in the art is an individual with the equivalent of a four-year degree from an accredited institution (usually denoted in this country as a B.S. or Bachelor’s degree) in Electrical Engineering (EE), Mechanical Engineering

(ME), or Computer Science (CS, with at least two semesters of coursework in EE and/or ME), together with at least two years of experience working with, developing, or designing electronic devices with user interfaces. Advanced education in EE, ME, or CS might substitute for some of the experience, while extensive experience in working with, developing, or designing electronic devices with user interfaces might substitute for some of the educational requirements. The parties do not object to this definition of a person of ordinary skill in the art. [*See* Tr. at p. 10, l. 10 to p. 12, l. 21 (discussing Ct.’s Ex. No. 1).]

IV. DISPUTED CLAIM TERMS IN THE ‘833 PATENT

The disputed claim terms are found in claims 1, 17, 28, or 29 of the ‘833 patent. These claims are set out below, with the disputed terms in bold.

1. An audio system, comprising:

- a **portable electronic device** having a display, a memory, and an audio file player;
- a first portion of software saved at the portable electronic device and configured to initiate a displaying of a graphical interface item on the display, the graphical interface item comprising a name associated with an audio file saved in the memory;
- a mounting location on the portable electronic device that includes a physical interface configured to communicatively couple the portable electronic device to a different electronic device having an associated display; and
- an other portion of software saved at the portable electronic device and **configured to communicate a representation of the graphical interface item to the different electronic device via the physical interface to facilitate a displaying of the representation** on the associated display, wherein the portable electronic device is **configured to communicate interface information to the different electronic device in order to allow a user to view at least a partial representation of a graphical user interface** that includes the graphical interface item on the associated display, wherein the graphical user interface comprises a plurality of **preprogrammed soft buttons that are linked to respective audio information sources**.

U.S. Patent No. 7,324,833, col. 18, ll. 39-61 (filed Sept. 23, 2004).

17. An audio system, comprising:

a **portable electronic device** that has a display, a memory, and a processor;

software saved at the portable electronic device and **configured to** direct the portable electronic device to save an audio file in the memory, **to associate the audio file with a name**, to include the name in a graphical menu of available content, to present the name on the display of the portable electronic device, and to **communicate a collection of information** comprising the name to a different electronic device that has an associated display **such that a user can interact with the different electronic device**: (1) to navigate through a plurality of audio files; (2) **to view at least a portion of the graphical menu on the associated display**, wherein the portion comprises the name; and (3) **to select an available audio file for processing**; and

wherein the portable electronic device is **configured to communicate interface information to the different electronic device in order to allow the user to view the graphical menu on the associated display in a graphical user interface** that includes a plurality of **preprogramed soft buttons that are linked to respective audio information sources**.

‘833 patent, col. 19, l. 46 to col. 20, l. 3.

28. An audio system, comprising:

an automobile having a sound system that includes an electronic device with an associated display and a user interface mechanism;

a **mount** communicatively coupled to the electronic device and configured to engage a physical interface of a **portable electronic device** that has a display, a memory, a processor, and software saved at the portable electronic device and **configured to** direct the portable electronic device to save an audio file in the memory, **to associate the audio file with a name**, to include the name in a menu of available content, to present the name on the display of the portable electronic device, and to **communicate a collection of information** comprising the name to the electronic device **such that a user can interact with the electronic device**: (1) to navigate through a plurality of audio files; (2) **to view at least a partial representation of the menu on the associated display**; and (3) **to select an available audio file for processing**; and

wherein the electronic device is configured to receive the collection of information and to present the partial representation of the menu on the associated display, further wherein the partial representation of the menu is presented on the associated display in a graphical user interface that includes a plurality of **preprogrammed soft buttons that are linked to respective audio information sources**.

‘833 patent, col. 20, l. 41 to col. 21, l. 3.

29. The system of claim 28, wherein the electronic device is configured to receive the collection of information and to present the name on the associated display by software embedded in the electronic device as **firmware**.

‘833 patent, col. 21, ll. 4-7.

V. CLAIM CONSTRUCTION

One or all of the parties stated in briefing or at the hearing that the meaning of certain claim terms, or of phrases within a disputed term, was uncontested or did not require construction. However, upon inquiry by the court, it became apparent that no clear agreement regarding the meaning of some of these terms or phrases had actually been reached. [*See, e.g.*, Tr. at p. 62, ll. 4-17; *id.* at p. 118, ll. 2-22; *id.* at p. 119, l. 23 to p. 120, l. 7 (parties agreed “audio information source” does not require construction, but they later disagreed over exact scope of what might be considered “audio information”).] Although the court need not construe terms with ordinary meanings, when the parties raise an actual dispute regarding the proper scope of the claims, the court must resolve that dispute. *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008). An assertion that a claim term “needs no construction” may be inadequate when reliance on a term’s “ordinary” meaning does not resolve the parties’ dispute. *Id.* at 1361. Therefore, out of an abundance of caution, the court has construed certain of the terms for which the parties indicated no construction is necessary, in an

effort to avoid disputes over their precise meaning at trial, which might require a new construction after the jury has been seated.

1. “Interface information.” ‘833 patent, claims 1 and 17.

The word “interface” in this claim term refers to a graphical user interface (“GUI”). [*See* Tr. at p. 14, l. 23 to p. 16, l. 13.] The parties agree that “graphical user interface” means “[a] presentation that contains selectable graphics (for example, text or icons).” [9:08CV164, Doc. #285 Ex. B, Agreed Cl. Terms at 1; *see also* Tr. at p. 17, ll. 5-14 (discussing Ct.’s Ex. No. 2).] The “interface information” is communicated from the portable electronic device to a second electronic device.³ *See, e.g.*, ‘833 patent, col. 18, ll. 54-56 (“wherein the portable electronic device is configured to communicate interface information to the different electronic device”). The parties dispute what is included in the information that is transmitted.

Plaintiff and Defendant Volkswagen Group of America, Inc. (“Volkswagen”) suggested that “interface information” does not require construction. [9:08CV164, Doc. #289 Ex. A, Revised Joint Cl. Constr. Chart at 1.] Plaintiff suggests in the alternative that “interface information” means “data for a graphical user interface.” [Doc. #289 Ex. A at 1.] The remaining defendants proposed that “interface information” means “visual layout data for a graphical user interface.” [Doc. #289 Ex. A at 1.]

³ Many of the patent claims refer to a “portable electronic device” and a “different electronic device.” As agreed by the parties, “portable electronic device,” “PED,” and “first electronic device” were used interchangeably at the claim construction hearing [*see* Tr. at p. 12, l. 22 to p.13, l. 19], and the court continues to use those phrases interchangeably throughout this order. Likewise, “different electronic device” is used interchangeably with “second electronic device.” Claim 28 refers to “an automobile having a sound system that includes an electronic device,” and the court may also refer to this electronic device in the automobile sound system as the “second” or “different” electronic device.

Defendants admit that the phrase “visual layout data” does not appear in the patent’s specification. [See Tr. at p. 18, l. 16 to p. 19, l. 9.] Defendants argued that some kind of display or layout information must be communicated from the first device to the second device in order for the second device to display a GUI that is “familiar and consistent” with the GUI on the first device. [See Tr. at p. 30, l. 7 to p. 31, l. 5.] The phrase “familiar and consistent” is neither a requirement of the claims, nor is it found in the specification. Rather, this language was used by the applicants in a Reply to Non-Final Office Action, in which the applicants expounded upon a particular embodiment, namely the radio dial **412**, which is shown at ‘833 Patent fig.4, and described at ‘833 patent, col. 11, ll. 13-44. [See 9:08CV164, Doc. #267 Ex. I, Reply to Non-Final Office Action at 9 (describing how the claimed invention allows a user to interact with a “somewhat familiar and consistent interface” no matter what electronic device is being used to access available audio content).]

This portion of the prosecution history provides some guidance regarding the meaning of “interface information,” since it describes certain features of a GUI that might be communicated between different devices. However, radio dial **412** is only one embodiment of the claimed invention, and Defendants have not provided a basis in the specification for concluding that the claim language excludes the situation where the format and appearance of the GUI on the second electronic device is determined by that device rather than by the PED. *See Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009) (court should not limit broader claim language to the embodiments disclosed in the specification unless patentee has demonstrated clear intent to limit claim scope by using “words or expressions of manifest exclusion or restriction”).

Defendants point to nothing in the specification or prosecution history that precludes the name of a song from being displayed on the GUI of the second device in a truncated form or in a slightly different format than it is displayed on the GUI of the PED. For example, the PED might display “The Yellow Rose of Texas” from left to right in sans serif font, while this song appears as “The Yellow Rose” reading from top to bottom in script font on the display of the second electronic device. [*See* Tr. at p. 18, l. 16 to p. 27, l. 16.]

The claim language, read in light of the specification, requires only that “interface information” be sufficient to allow at least some of the descriptive information associated with an audio file, or some information that facilitates the selection of audio files, to be displayed on the GUI of the second device. For instance, in claim 1, a “graphical interface item” is displayed on the PED. ‘833 patent, col. 18, ll. 39-41. The “interface information” must be sufficient to “allow a user to view [on the second electronic device] at least a partial representation of a [GUI] that includes the graphical interface item.” ‘833 patent, col. 18, ll. 56-58. The “graphical interface item” “comprises” merely “a name associated with an audio file.” ‘833 patent, col. 18, ll. 41-43. So, the “interface information” must be sufficient to allow a user to view, on the second device, a partial representation of the name associated with an audio file. This could mean that details regarding the formatting of how the name or graphical interface item is displayed on the second device are determined by the second device itself.

Defendants also suggest that the second or “different” electronic device is not actually included in the audio systems claimed in claims 1 and 17. [Doc. #267, Defs.’ Cl. Constr. Br. at 6.] Defendants point to dependent claims 19 and 20 [*see* Doc. #267 at 6], which modify claim 17 with a limitation of “further comprising the different electronic device,” wherein the

different electronic device is a home stereo component in claim 19, '833 patent, col. 20, ll. 6-8, and an automobile stereo component in claim 20, '833 patent, col. 20, ll. 9-11. This may give rise to a presumption that claim 17, from which claims 19 and 20 depend, does not include the different electronic device. However, while “dependent claims are presumed to be of narrower scope than the independent claims from which they depend,” this presumption is rebuttable; dependent claims “are only an aid to interpretation and are not conclusive” as to the scope of the claims from which they depend. *See Regents of the Univ. of Cal. v. Dakocytomation Cal., Inc.*, 517 F.3d 1364, 1375 (Fed. Cir. 2008).

Both claims 1 and 17 describe an audio system “comprising” several elements. “Comprising” is an open-ended transitional phrase. *CIAS, Inc. v. Alliance Gaming Corp.*, 504 F.3d 1356, 1360 (Fed. Cir. 2007) (“‘[C]omprising’ is well understood to mean ‘including but not limited to.’”). This means that the scope of claims 1 and 17 could include the different electronic device, especially since both claims specifically refer to it. *See, e.g.*, '833 patent, col. 19, ll. 54-56 (claim 17; PED is configured “to communicate a collection of information . . . to a different electronic device”). Further, although dependent claims 19 and 20 may imply that the different electronic device is not included in the audio system of claim 17, there are no equivalent claims depending from claim 1. Building from the premise that the second electronic device is not included in the audio system of claims 1 and 17, Defendants argue that the GUI displayed by the second device is not created by the second device, and therefore “interface information” must, by itself, permit the user to view a GUI including the same “graphical interface item” or “graphical menu” display that is present on the PED. [*See* Doc. #267 at 6-7.] To the extent that the presence of dependent claims might require particular display or layout information to be included in the

“interface information” of claim 17, such a requirement is not dispositive. Claim 1 does not contain such a requirement, and claim terms should be interpreted consistently throughout various claims of the same patent, *Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1371-72 (Fed. Cir. 2005).

Defendants suggest that the prosecution history supports their construction. [See Doc. #267 at 7-8.] During prosecution, the PTO rejected claims over U.S. Patent No. 6,232,539 to Looney on the grounds that Looney permitted a user to navigate through files, view audio file names, and select audio files for processing. [Doc. #267 at 7.] Defendants assert that the applicants distinguished Looney on the grounds that the graphical user screens in Looney are not shared by two different kinds of devices. [Doc. #267 at 7; *see also* Doc. 267 Ex. D, Resp. & Req. for Continuing Examination & Amendment at 9-10.] Defendants assert that even if the claim language could be interpreted more broadly than they propose, the applicants disavowed such interpretations by describing the scope of the claimed invention as one where a single GUI was displayed on multiple devices and arguing that the invention was patentable over Looney because Looney does not teach the sharing of screens between two devices. [Doc. #267 at 8.]

Although statements supporting this assertion are found in the prosecution history, this is only one ground upon which the applicants distinguished Looney. For example, the Looney reference was also distinguished on the ground that the graphical interface elements in Looney are not “preprogrammable” and do not allow the user to customize the display that appears on an electronic device. [See Doc. #267 Ex. D at 9-10.] The court finds that the applicants did not clearly and unmistakably disclaim the possibility that the “interface information” communicated by the PED could be something other than “visual layout data,” or that the GUI displayed by the

second device could be created in part by the second device. *See Elbex Video, Ltd. v. Sensormatic Elecs. Corp.*, 508 F.3d 1366, 1371-72 (Fed. Cir. 2007) (no prosecution disclaimer where alleged disavowal is ambiguous; disavowal of claim scope must be “clear and unmistakable” to one of ordinary skill in the art).

Additionally, the court is of the opinion that the construction of “interface information” need not specify that the information communicated includes “visual layout data” or other data about the way the information is to be displayed on the GUI of the second device, because the claim language itself clarifies what is to be included in the “interface information.” As discussed above, claim 1 specifies that the “interface information” must be sufficient to allow a user to view, on the second device, a partial representation of a graphical interface item comprising the name associated with an audio file. *See* ‘833 patent, col. 18, ll. 39-58. Claim 17 specifies that the “interface information” is communicated “in order to allow the user to view the graphical menu” in a GUI on the display of the second device. ‘833 patent, col. 19, ll. 64-66. This indicates that the “interface information” must include enough display or layout information for the second device to display the “graphical menu.” The language of the claims makes clear that “interface information” must include some kind of display information about what is to be displayed on the GUI of the second device, and in fact, the two claims each describe slightly different requirements regarding what is displayed on the GUI of the second device, therefore indicating slightly different requirements for what display information must be included in the “interface information.”

Since the claim language itself indicates that “interface information” includes some information about what is to be displayed on the GUI of the second device, and since each claim

specifies the particular display or layout information that must be included in the “interface information” communicated, it would be redundant to define “interface information” to include display information or “visual layout data.” Therefore, the court construes “interface information” as follows:

“Interface information” means “facts or instructions that are communicated for use by a graphical user interface.”

“Graphical user interface” means “a presentation that contains selectable graphics, for example, text or icons.”

Plaintiff does not object to this definition. [*See* Tr. at p. 27, ll. 19-25; *id.* at p. 43, ll. 20-23 (discussing Ct.’s Ex. No. 3).]

2. “Configured to communicate . . .” phrases.

- a. “Configured to communicate a representation of the graphical interface item to the different electronic device via the physical interface to facilitate a displaying of the representation.” ‘833 patent, claim 1.**
- b. “Configured to communicate interface information to the different electronic device in order to allow a user to view at least a partial representation of a graphical user interface.” ‘833 patent, claim 1.**
- c. “Configured to . . . communicate a collection of information . . . such that a user can interact with the different electronic device: . . . to view at least a portion of the graphical menu on the associated display.” ‘833 patent, claim 17.**
- d. “Configured to communicate interface information to the different electronic device in order to allow the user to view the graphical menu on the associated display in a graphical user interface.” ‘833 patent, claim 17.**
- e. “Configured to . . . communicate a collection of information . . . such that a user can interact with the electronic device . . . to view at least a partial representation of the menu on the associated display.” ‘833 patent, claim 28.**

The parties briefed these five phrases together. Initially, both Plaintiff and Defendant Volkswagen suggested that the terms do not need construction. [Doc. #289 Ex. A at 1-3.]

Defendants proposed similar constructions for all five. [See Doc. #289 Ex. A. at 1-3.] All five disputed terms concern the process by which the PED communicates graphical information or a representation of a graphical item to the second electronic device via some kind of interface. Depending on the claim term, some or all of the GUI is then displayed on the second electronic device for viewing and/or user interaction.

After input from the parties' experts and attorneys [see Tr. at p. 45, l. 11 to p. 59, l. 9], an agreement was reached that "configured to communicate . . ." means "able to send at least the interface information necessary for the second electronic device to display . . ." [See Tr. at p. 59, l. 10 to p. 61, l. 12 (discussing Ct.'s Ex. No. 5).] The court therefore construes these terms as follows:

- 2a. **"Configured to communicate a representation of the graphical interface item to the different electronic device via the physical interface to facilitate a displaying of the representation"** in claim 1 means **"able to send at least the interface information necessary for the second electronic device to display a representation of the graphical interface item⁴ on the portable electronic device."**
- 2b. **"Configured to communicate interface information to the different electronic device in order to allow a user to view at least a partial representation of a graphical user interface"** in claim 1 means **"able to send at least the interface information necessary for the second electronic device to display at least a partial representation of the graphical user interface on the portable electronic device."**
- 2c. **"Configured to . . . communicate a collection of information . . . such that a user can interact with the different electronic device: . . . to view at least a portion of the graphical menu on the associated display"** in claim 17 means **"able to send at least the interface information necessary for the second**

⁴ The court has modified the wording of this definition slightly from the definition found on Court's Exhibit No. 5, which was discussed at the *Markman* hearing. Namely, the court has replaced "of the display" with "of the graphical interface item" in order to make the definition more consistent with the claim language.

electronic device to display at least a portion of the graphical menu on the portable electronic device.”

2d. **“Configured to communicate interface information to the different electronic device in order to allow the user to view the graphical menu on the associated display in a graphical user interface” in claim 17 means “able to send at least the information necessary for the second electronic device to display the graphical menu on the portable electronic device.”**

2e. **“Configured to . . . communicate a collection of information . . . such that a user can interact with the electronic device . . . to view at least a partial representation of the menu on the associated display” in claim 28 means “able to send at least the information necessary for the second electronic device to display at least a partial representation of the graphical menu on the portable electronic device.”**

3. “Preprogrammed soft buttons that are linked to respective audio information sources.” ‘833 patent, claims 1, 17, and 28.

Plaintiff and all Defendants, including Defendant Volkswagen, proposed constructions indicating that “preprogrammed soft buttons” are “software-rendered graphical buttons” that somehow customize the display. [See Doc. #289 Ex. A at 3.] The disputed issues for the term “preprogrammed soft buttons that are linked to respective audio information sources” were: (a) whether a “preprogrammed soft button” can be a physical button or must be “software-rendered”; (b) whether the phrase “audio information sources” requires construction; (c) whether the user must customize the display; and (d) whether the customization may take place at the second electronic device. The court will take these issues in order.

a. Physical vs. “Software-rendered” Buttons

After consultation with their experts and discussion and review of proposed definitions with the court [see Tr. at p. 68, l. 18 to p. 78, l. 19], the parties agreed that **“soft buttons” means “software-rendered graphics that a user can select by pushing the screen display or by**

pushing an associated physical button” [*see* Tr. at p. 78, l. 20 to p. 79, l. 19 (discussing Ct.’s Ex. No. 8)].

b. Audio Information Sources

The parties agreed that “audio information sources” could include an audio file stored on the PED, a playlist, a satellite radio station playing in real time, or other collections of audio information, and that whether each of those audio sources would satisfy the claim language would depend on other limitations in the particular claim under consideration. [*See* Tr. at p. 62, l. 3 to p. 66, l. 18.] Based on this agreement, the court proposed that

An “audio information source” means a “ a provider of electronically transmitted information such as songs, on-line radio stations, on-line broadcasts, streaming video, text, or other selectable information.”

[*See* Tr. at p. 188, ll. 5-7 (referring to Ct.’s Ex. No. 13).] Plaintiff and Defendant Volkswagen agreed to this construction. [*See* Tr. at p. 118, ll. 8-12.] The remaining defendants stated that they were “fine with not having ‘audio information source’ construed.” [Tr. at p. 118, ll. 15-16.] Given that there was initially some disagreement over this phrase [*see* Doc. #289 Ex. A at 3; Tr. at p. 63, ll. 4-8], the court concluded that construing the phrase now will prevent a potential *O2 Micro* dispute from arising during trial [*see* Tr. at p. 188, ll. 17-19]. Defendants then objected to the inclusion of “text” in the definition of “audio information source.” [*See* Tr. at p. 118, ll. 20-22.]

Defendants pointed to a portion of the specification that seems to distinguish “audio information” from other types of information. *See* ‘833 patent, col. 3, ll. 10-12 (“[O]ther types of information, such as video, textual, etc. may be communicated utilizing the systems and methods

disclosed herein . . .”). While that excerpt may seem to indicate that “audio information” is different from “other types of information,” the specification goes on to say that

[I]t will be understood that information may be formatted in a plurality of ways at different phases of communication without los[ing] the underlying content of the selected information. . . . Therefore, the term “audio information” or “information” is used in a general sense to relate to audio information in all phases of communication.

‘833 patent, col. 3, ll. 13-21. Other portions of the specification also provide guidance regarding the meaning of “audio information.” For example, the specification states that a user may select “audio information such as songs, on-line radio stations, on-line broadcasts, streaming audio, or other selectable information.” ‘833 patent, col. 2, ll. 55-57. It also states that an electronic device may communicate with a “digital engine” that maintains “a plurality of different types of information or data associated with the selected audio information.” *See* ‘833 patent, col. 3, ll. 41-52.

Given that the specification states that “audio information” and “information” are used in a general sense and may include information “in all phases of communication”; that “audio information” could include not only songs and radio broadcasts but also “other selectable information”; and that the “digital engine” may maintain “a plurality of different types of information or data associated with the selected audio information,” the court finds that the specification’s discussion of “audio information” as compared to “other types of information, such as video, textual, etc.” does not amount to a restriction that would exclude the possibility that an “audio information source” may maintain textual information. Therefore, the court defines “**audio information source**” as “**a provider of electronically transmitted information**

such as songs, on-line radio stations, on-line broadcasts, streaming audio, video, text, or other selectable information.”

b. Who or What Entity Must Customize the Display

The parties disputed whether customization of the display must be done by the user. Plaintiff argued that the customization of the soft buttons occurs when the user selects and downloads audio files with associated names to the PED. [See 9:08CV164, Doc. #274, Pl.’s Reply Br. Regarding Cl. Constr. at 5-6.] Plaintiff objects to the phrase “programmed by the user” in Defendants’ proposed construction, arguing that the customization of the soft buttons and the display “is done by virtue of . . . the user’s customized selection of music” loaded onto the PED. [See Doc. Tr. at p. 81, ll. 13-18; *id.* at p. 82, ll. 9-12.] Defendants argued that the customization must be done by the user, noting that the patent “touts the ability of the *user* to customize the programmable radio dial as an advance over prior art.” [Doc. #267 at 30 (emphasis in original).] Defendants argued that “merely putting songs into the portable device is not enough to customize the interface.” [Tr. at p. 99, l. 25 to p. 100, l. 2.] Defendants contend that the user must create or define the soft buttons by “cho[osing] which audio information sources are displayed in the form of soft buttons.” [Doc. #267 at 33.]

After some discussion and consideration of possible definitions [see Tr. at p. 79, l. 22 to p. 116, l. 4], the court proposed the following:

“Preprogrammed soft buttons that are linked to respective audio information sources” means “software-rendered graphics that customize the display as directed by the user and that a user can select by pushing the screen display or by pushing an associated physical button and that are linked to a specific audio information source accessible through the portable electronic device.”

[*See* Tr. at p. 114, l. 19 to p. 115, l. 5; *id.* at p. 115, l. 23 to p. 116, l. 4.] After some discussion, the parties agreed with this proposed construction. [*See* Tr. at p. 115, l. 6 to p. 117, l. 19 (discussing Ct.’s Ex. Nos. 11 & 12).] However, this construction does not resolve the question of when and where the customization takes place, i.e. whether the customization must occur prior to the time the soft button is displayed on the GUI of the second electronic device, or whether the customization can take place at the second electronic device.

c. When and on What Device Customization of the Display Occurs

Plaintiff argues that because the claim uses the language “preprogrammed” soft buttons, the programming relating to a soft button, whether done by the user or by some other entity, must have already occurred by the time the soft button is displayed on the GUI of the second electronic device. [9:08CV164, Doc. #264, Pl.’s Opening Cl. Constr. Br. at 14.] Plaintiff asserts that the prosecution history supports its argument that “the term ‘preprogrammable’ means, at most, that the user is able to customize the information represented by a particular soft button on the portable device prior to that information being shared with other electronic devices.” [Doc. #264 at 17; *see also* Doc. #264 Ex. K, Reply to Non-Final Office Action at 9, 10.] Plaintiff further argues that the prefix “pre-” in “preprogrammed” emphasizes the fact that the programming must occur at an earlier point in time, and thus means that no programming or customization occurs by the user at the second electronic device. [*See* Doc. #274 at 6.]

Defendants argue that the claim language is “agnostic” as to where the customization takes place, and that it is unnecessary for the claim construction to specify on which electronic device the preprogramming occurs. [Tr. at p. 84, l. 23 to p. 85, l. 12.] Defendants argue that, for example, the second electronic device might be programmed to retrieve the first four playlists

stored on the PED and display a soft button for each playlist, in which case the “preprogramming” of the soft buttons would take place at the second electronic device. [See Tr. at p. 85, l. 19 to p. 86, l. 4.] Defendants argue, quoting Plaintiff’s brief, that “preprogrammed” simply means that “by the time the soft button is presented in a GUI on the separate electronic device, the programming relating to that soft button . . . has already occurred.” [See Doc. #267 at 32 (quoting Doc. #264 at 14).] Defendants argue that while some portion of the information used by the GUI is communicated from the PED to the second electronic device, there is no restriction in the claims about which electronic device is used to decide the function of a particular soft button. [Tr. at p. 91, ll. 2-11; *id.* at p. 92, ll. 8-11.]

“[C]ourts must take care not to import limitations into the claims from the specification.” *Abbott Labs.*, 566 F.3d at 1288. The court may reach a narrower claim construction limited to the embodiments disclosed in the specification if the intrinsic evidence clearly indicates that the invention encompasses no more than that confined structure or method; however, the court should not limit broader claim language to the embodiments disclosed in the specification unless the patentee has demonstrated a clear intent to limit the claim scope by using “words or expressions of manifest exclusion or restriction.” *Id.* Further, while the prosecution history can inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, owing to the “inherent ambiguities” of prosecution history, the doctrine of prosecution disclaimer only applies to unambiguous disavowals of claim scope. *Id.* at 1289.

In this case, the claim language itself does not foreclose the possibility that the “preprogramming” of the soft buttons could take place at the second electronic device. To the

extent that the embodiments of the invention detailed in the specification and prosecution history describe the preprogramming and customization of the display taking place either at the PED or at the computer where audio files are downloaded prior to loading them on the PED, the court finds no “words or expressions of manifest exclusion or restriction” in the specification and no “unambiguous disavowal” of claim scope in the prosecution history that would preclude the user from preprogramming the soft buttons and customizing the display via the second electronic device.

Therefore, the court construes this disputed term as follows:

“Preprogrammed soft buttons that are linked to respective audio information sources” means “software-rendered graphics (1) that customize the display as directed by the user via the portable electronic device, the different electronic device, or some other electronic device; (2) that a user can select by pushing the screen display or by pushing an associated physical button; and (3) that are linked to a specific audio information source accessible through the portable electronic device.”

“Audio information source” means “a provider of electronically transmitted information such as songs, on-line radio stations, on-line broadcasts, streaming audio, video, text, or other selectable information.”

4. “To associate the audio file with a name.” ‘833 patent, claims 17 and 28.

The parties initially agreed that “name” does not require construction. [Doc. #285 Ex. B at 1.] To avoid problems at trial and to prevent any future hedging regarding the scope of this word, the court proposed, and the parties agreed, that **“name” means “a word or group of words that identifies an audio file or a group of audio files.”** [See Tr. at p. 125, ll. 12-17.] Plaintiff also suggests that this complete term does not require construction. [Doc. #289 Ex. A at 4.] All Defendants, including Defendant Volkswagen, propose that “to associate the audio file with a name” means “to create a link between the audio file and a name.” [Doc. #289 Ex. A at 4.]

Defendants' proposed construction narrows the claim language to the situation in which a connection between the name and the audio file is "created," and excludes the situation in which there is a preexisting connection between the name and the audio file. [See Doc. #267 at 36-37.] Defendants argue that the claim language itself supports the idea that the PED is required to create the association. [See Doc. #267 at 36.] Defendants assert that because claims 17 and 28, the two claims for which the parties have asked the court to construe this term, speak of software residing at the PED that is "configured to direct the portable electronic device . . . to associate the audio file with a name," the claim language indicates that it is the PED that actually performs the association. [See Tr. at p. 127, l. 12 to p. 129, l. 2.]

However, Defendants' proposed construction would exclude an embodiment of the invention that was relied upon to support the claimed invention during prosecution. *See* '833 Patent fig.4 (showing radio dial **412**, including a "user selected playlist," which may include associations between an audio file and a name, displayed on a computer *before* it is transferred to the PED); [Doc. #274 Ex. 1, Reply to Final Office Action and Interview Summ. at 2 (noting that radio dial **412** had been discussed with the examiner, who then agreed to remove a 35 U.S.C. § 112 rejection)]. Defendants argue that any embodiments of the invention that require recognition of a preexisting connection between an audio file and a name are addressed by claim 1, which "does not speak in terms of when or where the association is created," and that there is a distinction between claim 1 and claims 17 and 28, which require the connection to be created by the PED. [See Tr. p. 127, ll. 19-21; *id.* at p. 132, ll. 13-21; *id.* at p. 135, ll. 3-10.] Even if that were the case, claim terms should be interpreted consistently throughout various claims of the same patent. *See Callicrate*, 427 F.3d at 1371-72.

Further, even with respect to claims 17 and 28, nothing in the intrinsic evidence requires that all associations between an audio file and a name be created by the PED. Claims 17 and 28 simply state that the PED contains software “configured to” associate an audio file and a name; they do not state that the PED must perform all such associations. *See* ‘833 patent, col. 19, ll. 49-52 (claim 17); *id.*, col. 20, ll. 48-51 (claim 28). The court finds that the ordinary and customary meaning of “to associate” to a person of ordinary skill in the art at the time of the invention would include both the creation of a connection and the recognition of a preexisting connection. This understanding of “to associate” is consistent with one of the dictionary definitions of “associate” cited by Defendants in their brief. [*See* Doc. #267 Ex. V, *Microsoft Computer Dictionary* 38 (5th ed. 2002) (defining “associate” as “[t]o inform the operating system that a particular file name extension is linked to a specific application”).]

Therefore, the court construes the term as follows:

“To associate the audio file with a name” means “to recognize an existing connection or to establish a connection between the electronic data representing the audio file and the electronic data representing the name.”

“Name” means “a word or group of words that identifies an audio file or a group of audio files.”

5. “To select an available audio file for processing.” ‘833 patent, claims 17 and 28.

Plaintiff originally proposed that “to select an available audio file for processing” means “to select an available audio file for converting into an audio signal.” [#289 Ex. A at 4.] All Defendants, including Defendant Volkswagen, suggest that this term does not require construction. [Doc. #289 Ex. A at 4.] Plaintiff subsequently informed the court via email that it now agrees with Defendants that this term does not need construction.

At the *Markman* hearing, the parties agreed that “processing” encompasses “converting into an audio signal,” but that it could also encompass a variety of other actions that might happen to an audio file once it is selected for processing, such as storing, deleting, replaying, copying, etc. [*See* Tr. at p. 137, ll. 11-15; *id.* at p. 138, ll. 1-2.] The parties agreed that whether certain types of “processing” actions would satisfy the claims would be clear from the context of the claim language, and they indicated that there was no dispute as to the meaning of the remainder of this claim term. [*See* Tr. at p. 135, l. 13 to p. 139, l. 21.]

The court finds that the word “processing” has a common and ordinary meaning. *See Phillips*, 415 F.3d at 1314 (“In some cases, the ordinary meaning of claim language . . . may be readily apparent even to lay judges”); *O2 Micro*, 521 F.3d at 1360 (district court not obligated to construe terms with ordinary meanings). The court further finds that since the parties no longer dispute the scope of the word “processing,” and since there is no dispute as to the remainder of the claim term, “to select an available audio file for processing” does not require construction. *See O2 Micro*, 521 F.3d at 1362 (claim construction “is a matter of resolution of disputed meanings,” and does not require district courts to construe every limitation present in a patent’s asserted claims (quoting *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997))).

6. “A mount.” ‘833 patent, claim 28.

Plaintiff proposed that “a mount” means “a communication interface that connects a portable device and a separate electronic device.” [Doc. #289 Ex. A at 4.] All Defendants, including Defendant Volkswagen, proposed that “a mount” means “a fixture designed to receive and secure the portable electronic device in a stationary position.” [Doc. #289 Ex. A at 4.] The

parties' disputed whether a "mount" is a physical fixture that holds and secures the PED, or whether it can encompass any communication interface that connects the PED and the second electronic device, such as a wire or cable. Plaintiff asserted that "the 'mount' is essentially an 'interface' (*e.g.*, a plug or a connector or a cable)." [Doc. #274 at 11.] Defendants argued that "the ordinary meaning of 'mount' requires something more than a communication interface; rather, it requires . . . something that securely attaches or affixes the portable electronic device." [Doc. #267 at 12.]

The court agrees with Defendants that a "mount" is more than simply a plug or a cable. [See Tr. p. 142, l. 4 to p. 144, l. 6; *id.* at p. 145, l. 14 to p. 146, l. 15.] The intrinsic evidence indicates that the mount is a place to hold or secure the PED, and thus that it is more than simply a "communication interface." *See, e.g.*, '833 patent, col. 9, ll. 28-29 (PED "may be *mounted to* a portion of a car's console" (emphasis added)); *id.*, fig. 9 and col. 17, ll. 41-53 ("electronic device **907** may be *mounted within* interface **904**" (emphasis added)); *id.*, fig. 5A and col. 11, ll. 61-65 (showing "mount **501** *operable to receive* electronic device **502**" (emphasis added)).

At the *Markman* hearing, the parties agreed to the following construction:

"A mount" means "a structure in or on which the portable electronic device is placed, inserted, or attached, such as a docking station or cradle."

[See Tr. at p. 145, ll. 14-18; *id.* at p. 146, ll. 8-15 (discussing Ct.'s Ex. No. 15).] Federal Circuit precedent and several technical dictionaries support this construction. *See, e.g., MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1334 (Fed. Cir. 2007) (defining "mounted on" as "attached to"); *Wiley Electrical and Electronics Engineering Dictionary* 484 (2004) (defining "mount" as "a support or substrate upon which objects may be fixed or assembled"); *McGraw-Hill Dictionary of Scientific and Technical Terms* 1377 (6th ed. 2003) (defining "mount" as a

“structure supporting any apparatus”); *Academic Press Dictionary of Science and Technology* 1418 (1992) (defining “mount” as “the support on which an apparatus or instrument is designed to rest”).

7. “Portable electronic device.” ‘833 patent, claims 1, 17, and 28.

Plaintiff proposes that “portable electronic device” means “a handheld electronic device that can play digital audio files independent of another electronic device.” [Doc. #289 Ex. A at 4.] All Defendants, including Defendant Volkswagen, propose that “portable electronic device” means “an electronic device that is transportable, such as, for example, a portable digital assistant (PDA), MP3 player, CD player, cellular phone, or laptop computer.” [Doc. #289 Ex. A at 4.] Defendants do not disagree that the PED is a device that is operated independently of another electronic device [*see* Tr. at p. 154, ll. 17-20], and the parties do not appear to dispute that the PED could be capable of playing digital audio files. The dispute centers around whether the PED must be “handheld,” or whether it could include devices such as a CD player or a laptop computer. [*See* Tr. at p. 154, ll. 11-14.]

Plaintiff objects to the inclusion of a CD player and a laptop computer as examples of a PED on the grounds that CD players and laptop computers do not fit within the concept of “portable” devices. [*See* Doc. #264 at 30-31.] Plaintiff argues that “the concept of a portable electronic device as claimed is a device that can be conveniently transported and used within an automobile, i.e. a handheld device.” [Doc. #264 at 31.] Defendants argue that their proposed construction is in accord with the ordinary meaning of the word “portable,” i.e. “capable of being moved about.” [Doc. #267 at 22 (citing *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1375 (Fed. Cir. 2008) (approving construction of “portable” in the term “portable

computer” as “capable of being moved or carried about”).] Defendants point to Figure 5A, which depicts a boombox that is “portable” but not “handheld.” [Doc. #267 at 24 (citing ‘833 patent, fig. 5A and col. 11, l. 63 (showing “portable radio **500**”)).] They note that during prosecution, the examiner considered the laptop computer featured in U.S. Patent No. 6,232,539 to Looney to be a PED, and the applicants never disagreed with this characterization. [See, e.g., Doc. #267 Ex. D at 10 (“[T]he Examiner considered the laptop-like device of Looney . . . to be the portable electronic device.”).]

The court finds nothing in the intrinsic evidence that requires the PED be handheld. Although Plaintiff argues that all of the portable devices disclosed in the specification are handheld, the court must “take care not to import limitations into the claims from the specification.” *Abbott Labs.*, 566 F.3d at 1288. The specification makes clear that an “electronic device” could include a computer. See ‘833 patent, col. 11, ll. 40-42 (“electronic devices (i.e., computer systems, portable computing devices, cellular phones, etc.)”). Claim 14, which mentions a personal computer, does not suggest that the PED could not also be a personal computer.

The prosecution history supports the construction that the PED need not be handheld. Plaintiff notes that the applicants described a PED as a device for use “in a mobile environment,” arguing that this indicates the user must be able to use the portable device “**while** being mobile.” [Doc. #274 at 15 (emphasis in original); see also Doc. #267 Ex. L, Reply to Non-Final Office Action at 17.] Plaintiff argues that “it would be extremely unusual to attempt to use a laptop computer while mobile, i.e., walking or driving.” [Doc. #274 at 15.] However, a device may be

“operable in a mobile environment” without being a “handheld” device.⁵ Whether a particular laptop computer or CD player is operable while driving or in another mobile environment may be a fact issue. That question may turn on facts such as the size and shape of a particular laptop computer or CD player, or the ease of using a particular electronic device while mobile. However, just because a fact dispute may arise as to whether a particular allegedly infringing device or a particular piece of prior art would meet a definition, i.e. a definition that leaves open the possibility that a non-handheld device may nevertheless be operable in a mobile environment, does not mean that such a definition is insufficient in a way that would result in experts instructing the jury on a matter of law, as was warned against in *O2 Micro*. See 521 F.3d at 1362.

During prosecution, the applicants described “portable electronic devices” as “devices or systems that may allow a user to operate a device, for example, in a mobile environment independent or untethered to another system.” [Doc. #267 Ex. L at 17.] At the *Markman* hearing, it was proposed that “portable electronic device” be construed in accordance with this description. [See Tr. at p. 155, ll. 6-9; *id.* at p. 160, ll. 5-7 (discussing slide 77 from Defendants’ presentation, which displayed an excerpt from the Nov. 1, 2005 Reply to Non-Final Office Action).] The parties agreed with this proposed construction. [See Tr. at p. 155, ll. 10-14; *id.* at p. 158, ll. 3-6; *id.* at p. 160, ll. 17-23.] The court further notes that technical dictionaries support

⁵ For instance, modern GPS devices designed for use in automobiles are “operable in a mobile environment.” They are also “portable” in the sense that they are designed to be moved from car to car, and they use suction cups, velcro, or the like to attach to a car’s windshield, console, or other convenient location. These devices may not be “handheld.” Other GPS devices, such as those used by hikers and hunters, are intended to be carried, rather than attached to something, and are operated while being held in the user’s hand.

this construction. *See, e.g., Wiley Electrical and Electronics Engineering Dictionary* 591 (2004) (defining “portable” as “That which can be easily moved from one location to another. For example, a portable computer.”); *id.* at 477 (defining “mobile” as “That which can be readily moved from one location to another.”).

Therefore, the court will define this term as follows:

“Portable electronic device” means “an electronic device that can be easily moved by a user from one location to another and that can be operated in a mobile environment independent of, or untethered to, another system.”

8. “Firmware.” ‘833 patent, claim 29.

The parties agree, and the court concludes, that:

“Firmware” means “software that is stored in some fixed form, such as a read-only memory.”

[*See* Tr. at p. 160, l. 24 to p. 161, l. 16; *see also* Doc. #289 Ex. A at 4.]

VI. CONCLUSION

The jury will be instructed in accordance with the court’s interpretation of the disputed claim terms in the ‘833 patent.

So **ORDERED** and **SIGNED** this **18** day of **December, 2009**.



Ron Clark, United States District Judge